

## PCV55

## ASSOCIATION OF DIETARY PATTERNS AND BLOOD PRESSURE IN TAIWANESE FEMALES

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**OBJECTIVES:** This study aimed to explore the relationship between the dietary patterns and blood pressure (BP) in Taiwanese females. **METHODS:** Cross-sectional study by surveying 269 Taiwanese females, 40 years of age or older, was conducted, using structured questionnaires, and BP and physiological parameters measurements. Descriptive statistics were performed for all measures as appropriate. To assess differences among the vegan, semi-vegetarian, and meat-eater groups by demographic, BP and health behavior data, Chi-Square test and Fisher's exact test for categorical variables, or analysis of variance tests and independent t-test for continuous variables were performed. The relationship between BP and dietary patterns was assessed using a multiple linear regression (MLR) model. All data were analyzed using SPSS 20.0 statistical analysis software. **RESULTS:** Among the total participants, 65 (24.2%), 105 (39.0%), and 99 (36.8%) were the vegan, semi-vegetarian, and meat-eater groups. Significant difference was found among three groups according to age, race, educational, employment, stress and waist-hip ratio. Based on BP, the systolic blood pressure (SBP) and diastolic blood pressure (DBP) were significantly different among the three groups. When SBP and DBP were considered independently, waist-hip ratio was significantly different between the good and poor controls in both SBP and DBP. Therefore, BP was predicted as a function of the three groups considering for waist-hip ratio. The  $R^2$  for the MLR model was 0.02, indicating that 2% of the variance in SBP and DBP were accounted for by the independent variables. The three groups were observed to be a significant predictor of SBP ( $\beta=0.14$ ,  $p=.02$ ) and DBP ( $\beta=0.15$ ,  $p=.02$ ). **CONCLUSIONS:** The dietary pattern is a predictor for the SBP and DBP outcome in Taiwanese females.

## PCV56

## EFFECTS OF THE PAY-FOR-PERFORMANCE PROGRAM ON HEALTH OUTCOMES OF DIABETIC PATIENTS

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**OBJECTIVES:** A number of studies have examined the impacts of pay-for-performance programs on quality of care, but little is known about long-term effects of these programs on the health care outcomes. This study aimed to examine the effects of the pay-for-performance program for type 2 diabetes patients on diabetes-related complications under the National Health Insurance in Taiwan. **METHODS:** A longitudinal cohort study with 5-year follow-up was used to evaluate the effects of the pay-for-performance program on diabetes-related complications. Research materials came from claims files of the Longitudinal Health Insurance Database (LHID) 2005 released by the National Health Research Institute in Taiwan. Patients newly diagnosed as diabetes in 2004–2006 were included in the study. Patients joined the pay-for-performance program and received the comprehensive care over 12 months during 2004 to 2010 were categorized as the case group. Patients never joined the pay-for-performance program during follow-up period were categorized as control group. Since patients who enrolled in the pay-for-performance program or not is not randomization, we applied the propensity score matching (PSM) to increase the comparatives between these two groups. The outcomes were the incidences of cardiovascular diseases. **RESULTS:** Patients in the case group experienced cardiovascular event significantly later than control group. The marginal hazard ratios of different propensity score method ranged from 0.60 to 0.63. Patients in the case group also had significant lower risks of heart failure, myocardial infarction and stroke between than patients in the control group. **CONCLUSIONS:** The pay-for-performance program may have reduced the incidence of cardiovascular events among patients newly diagnosed with diabetes who participated in the program for over 12 months.

## PCV57

## A RETROSPECTIVE, LONGITUDINAL STUDY TO INVESTIGATE THE CHANGE OF LDL-C LEVEL AND PHARMACEUTICAL INTERVENTION BY USING JAPANESE HEALTH CARE CHECKUP DATABASE

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**OBJECTIVES:** To investigate the LDL-c levels and pharmaceutical interventions in Japanese subjects under real life settings based on longitudinal data from a Japanese health care checkup database developed by MinaCare Co. Ltd. **METHODS:** Data of those subjects with annual health checkup from 2010 to 2012 were extracted from MinaCare database (cutoff November 2013). From these data, 11830 subjects with 3 years of parameter values (LDL-c, etc.) were used to assess their longitudinal changes and the self-reported use of medications. The reliability of MinaCare database has been evaluated in a separate investigation to be presented at ISPOR 19<sup>th</sup> Annual International Meeting. The final report of this investigation will be based on the latest of the periodically updated database at reporting. **RESULTS:** At baseline (2010), 11.9% (1410/11830) of the subjects reported LDL-c  $\geq 160$  mg/dL (target level for low risk hyperlipidemia population). Despite these high LDL-c values, 95.4% (1345/1410) of these subjects answered "untreated by anti-hyperlipidemia drug" (including one non-respondent). Among these 1345 subjects, 1257 (93.5%) answered "untreated" again in 2011; and among these "untreated", the proportions of subjects with LDL-c  $< 140$  (diagnostic level for hyperlipidemia), 160 < LDL-c  $\leq 180$  and LDL-c  $\geq 180$  in 2011 were 13.5% (n=170), 32.9% (n=413) and 22.9% (n=228), respectively. In contrast, among those who answered "treated" in 2011, the proportion with LDL-c  $< 140$  was dramatically higher (69.8%, n=60). Additionally, among those who answered "untreated" in 2011, the proportion answering "untreated" in 2012 (i.e. "untreated" in 3-consecutive years) was 94.1% (n=1183); among these subjects, the proportions of subjects with LDL-c  $< 140$ , 160 < LDL-c  $\leq 180$  and LDL-c  $\geq 180$  in 2012 were 16.5% (n=195), 29.8% (n=352) and 25.0% (n=296), respectively. **CONCLUSIONS:** Our investigation showed that >90% of subjects self-reported no treatment with

anti-hyperlipidemia drugs, despite LDL-c levels above 160 mg/dL. Many reported themselves untreated for 3 years. These results revealed a potentially critical gap between health care checkup results and subject's behavior to access medical treatment, suggesting more effective interventions to modify behavior is required.

## PCV58

## POLICY EVALUATION OF ANTI-HYPERTENSIVE DRUGS IN MUMBAI, INDIA

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**OBJECTIVES:** 1) Survey to evaluate the effectiveness of Drug Price Control Order (DPCO)2013: a health care policy devised by Government of India, and 2) To analyze the cost minimization benefits of the anti-hypertensive drugs falling under Drug Price Control Order (DPCO)2013 to the patients receiving palliative treatment. **METHODS:** Three sets of structured questionnaires were designed which captured the patient's gender, prescription trends for hypertensive patients in Mumbai, India. The survey through questionnaires, targeted 20 General Practitioners, 75 Retail Pharmacies and 25 patients. **RESULTS:** 1. Out of the total prescriptions received by Retail Pharmacies; Amlodipine accounted for 42%, Telmisartan: 27%, Atenolol: 20% and Ramipril: 10%. The same trend was followed by the General Practitioners. Amlodipine and Atenolol account for 63% of all prescriptions when considered together. These fall under Drug Price Control Order (DPCO)2013 and their selling price is Government capped and is therefore low. Telmisartan and Ramipril which do not fall under Drug Price Control Order (DPCO)2013 account for 37% when considered together. 2. Gender study of patient established the fact that more males (70%) are prone to hypertension than females (30%). 3. The average cost per dose of generics surveyed (Amlodipine, Atenolol) which fall under DPCO 2013 is 0.02USD (1.175INR) whereas that of generics (Telmisartan and Ramipril) which do not fall under DPCO 2013 is 0.1USD (6.3INR). **CONCLUSIONS:** 1. Amlodipine and Atenolol which fall under Drug Price Control Order (DPCO) 2013 are majorly prescribed as compared to Telmisartan and Ramipril which do not fall under Drug Price Control Order (DPCO)2013. 2. The drugs which fall under DPCO 2013 are 5 times less expensive than those that do not fall under DPCO 2013. Thus, the initiative taken by Government of India by devising this policy has made it economically viable for patients with palliative hypertension to meet their daily requirement of drugs.

## MENTAL HEALTH – Clinical Outcomes Studies

## PMH1

## EFFICACY AND SAFETY OF FIVE NEW ANTIDEPRESSION DRUGS A NETWORK META ANALYSIS

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**OBJECTIVES:** To estimate the effectiveness and adverse effect rate of five antidepressant drugs: fluoxetine, venlafaxine, maprotiline, mirtazapine and bupropion; and to systematically review those common used new antidepressant drugs' efficacy and safety in China. **METHODS:** we retrieve clinical research paper through Chinese Journal Full Text Database (1994–2014.2), Chinese Biomedical Literature Database (1978–2014.2), Chinese Technology Journal Full-text Database (1989–2014.2), Wanfang Data of Medical Information Mirror System (1997–2014.2), Digital Journal Full Text Database (1997–2014.2), PubMed (1966–2014.2), Cochrane Library (2014), EMBASE (1974–2014.2), ISI database (1974–2014.2). We screen these papers according to the inclusion and exclusion criteria and assess the quality of these included researches. Network Meta analysis method is used to combine the RCT results. WinBUGS and R software are used as instrument for statistical analysis to systematically assess OR values and quality rank of these five drugs. **RESULTS:** 89 clinical trials, 7007 patients with depression, 180 arms are totally included. Network Meta-analysis shows that fluoxetine improves effectiveness more obviously than venlafaxine and mirtazapine.  $OR_{venlafaxine-fluoxetine} = 0.6741$  [95%CI: 0.5313, 0.8307],  $OR_{fluoxetine-mirtazapine} = 1.5887$  [95%CI: 1.2369, 2.0220],  $P < 0.05$ . In terms of adverse effects, maprotiline leads to the least adverse effects rate.  $OR_{bupropion-maprotiline} = 8.6945$  [95%CI: 2.1496, 26.4462],  $OR_{maprotiline-venlafaxine} = 0.2086$  [95%CI: 0.0627, 0.4958],  $OR_{maprotiline-fluoxetine} = 0.2109$  [95%CI: 0.0607, 0.5422],  $OR_{maprotiline-mirtazapine} = 0.2521$  [95%CI: 0.0773, 0.6173],  $P < 0.05$ . Based on bayesian theory, network meta-analysis also ranks these five interventions. Results show that fluoxetine, bupropion and maprotiline have better effectiveness; but maprotiline, fluoxetine, mirtazapine have less adverse effects rate. **CONCLUSIONS:** Fluoxetine, as a new antidepressant drug, has higher clinical efficiency and lower adverse effects rate. Although maprotiline has a high grade of recommendation, we have few researches integrated into the model, further prospective studies are needed for strong evidence to support analogous research.

## PMH2

## MINIMUM CLINICALLY IMPORTANT DIFFERENCE IN THE GLOBAL ASSESSMENT FUNCTIONING IN PATIENTS WITH SCHIZOPHRENIA

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**OBJECTIVES:** Minimum Clinically Important Difference (MCID) can aid to assess the quality of improvement in functioning assessed by the Global Assessment Functioning (GAF). This scale, ranging between 0 and 100, subjectively rates the social, occupational, and psychological functioning of adults. The objective of this study was to generate MCID for GAF, based on a longitudinal cohort of patients with schizophrenia. **METHODS:** Two methods exist to assess MCID in scales such as GAF: the anchor-based approach (comparison of the change in CDSS score and Clinical Global Impression (CGI) within- and between-patients), and the distribution-based approach (comparison between the change in PRO scores and some measure of variability, including standard error measurement approach, standard deviation approach and effect size). Both methods were implemented in a longitudinal cohort